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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,407	10/28/2003	Curt E. Beckmann	112-0113US	5641

29855 7590 12/12/2006

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EXAMINER

SUN, SCOTT C

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,407

Applicant(s)

BECKMANN ET AL.

Examiner

Scott Sun

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/29/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment to the claims filed 9/29/2006 has been noted and entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Considine et al (PG Pub #2004/0117438) in view of Pham (PG Pub #2003/0074388).
5. Regarding claim 19, Considine discloses a network (figure 1) comprising: at least one host (clients) at least one storage device (storage) and a fabric (switch system 100; hardware shown in detail in figure 2; paragraph 76), the fabric comprising: at least one switch (switching in the IP 102, SP 104, and Fabric 106) for coupling to the at least one host and the at least one storage device (paragraph 76); and a storage processing device (SP processors 104 and IP processors 102 collectively) coupled to the at least

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one switch and for coupling to the at least one host and the at least one storage device (paragraph 77), the storage processing device including: an input/output module (various hardware shown in figure 2) including port processors (individual SP processors 104 and IP processors 102) to receive and transmit network traffic (paragraph 77), a switch coupling said port processors (switch 106) coupling said port processors, each port processor of said port processors including a node to receive and transmit said network traffic (LRCs 132 and SRCs 134; paragraphs 79 and 80); dedicated hardware assist circuitry (hardware of the port processors) to perform first selected port processing functions (content-aware switching, load balancing, mediation, hardware acceleration, fast forwarding, etc..., paragraph 77, 79).

Considine does not disclose explicitly an embedded processor or a frame classifier. However, Pham discloses a port processor (protocol processor 40 and 50 shown in figures 2 and 3) comprising an embedded processor (data processors 42, 44, paragraphs 38) and associated port processor firmware to perform selected port processing functions (compression, decompression, encryption, or decryption; paragraph 41, 42). Pham further discloses a frame classifier (filtering and routing functions of ingress processors 30, 34) to determine if said network traffic should be provided to said embedded processor or directly to said switch (paragraph 40). Teachings of Considine and Pham are from the same field of network traffic processing devices.

Therefore, it would have been obvious at the time of invention to combine teachings of Considine and Pham by using embedded processors and frame classifiers

in the network system of Considine for the benefit of efficiently processing packets needing different amount of processing (paragraphs 14, 40, Pham).

6. Regarding claim 20, Considine and Pham combined discloses claim 19 and Pham further discloses a control module (control processor 46) coupled to said input/output module, said input/output module directly processing the majority of said network traffic, and said control module processing a minority of said network traffic (paragraph 934, Considine; paragraphs 38, 39, Pham), wherein said frame classifier further determines if said network traffic should be provided to said control module through said switch (paragraph 38, figure 2). Examiner notes that Considine and Pham are consistent in stating that the control path is used to process more complex frames (such as frames for setting up an initial connection), while the less complex traffic (such as frames for connections already set up) are handled through the fast path.

7. Regarding claim 21-24, Considine and Pham combined disclose claim 19, and Pham further discloses the data processors can be a single processor handling multiple tasks or a series of processors, each performing different functions (compression, decompression, encryption, etc... paragraph 42). This is also consistent with applicant's disclosure that three embedded processors can be used, although a different number can be used (paragraph 58)

8. Regarding claim 25, Considine and Pham combined discloses claim 19 and Considine further discloses wherein the node is a Fibre Channel node (paragraph 80).

9. Regarding claim 26, Considine and Pham combined discloses claim 19 and Considine further discloses wherein the node is an Ethernet node (paragraph 79).

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10. Regarding claim 27, and Pham combined discloses claim 19 and Pham further discloses said frame classifier further determines if said network traffic should be provided to an embedded processor in another port processor through said switch (paragraph 41, figure 2). Examiner notes that Pham teaches that frame is sent to a select data processors based on the amount of load on the respective data processors.

11. Regarding claims 1-18, 28-36, Examiner notes that these claims are substantially similar to claims 19-27 above, differing in statutory category and having same or broader scope. Therefore the same grounds of rejection are applied.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

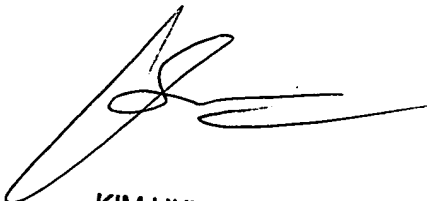
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Sun whose telephone number is (571) 272-2675. The examiner can normally be reached on M-F, 10:30am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS



KIM HUYNH
SUPERVISORY PATENT EXAMINER
12/8/06